

# MG Checklist

Spencer Smith

November 11, 2025

- Follows writing checklist (full checklist provided in a separate document)
  - L<sup>A</sup>T<sub>E</sub>X points
  - Structure
  - Spelling, grammar, attention to detail
  - Avoid low information content phrases
  - Writing style
  - Hyperlinks should be done properly (\ref)
- Module Decomposition
  - One module one secret (unless an explicit exception is made, with a good reason) - all “and”s should be checked.
  - The uses relation is a hierarchy.
  - Secrets are nouns (generally).
  - Traceability matrix between modules and requirements shows every requirement is satisfied by at least one module
  - Traceability matrix between modules and requirements shows that every module is used to satisfy at least one requirement
  - Traceability matrix between likely changes and modules shows a one to one mapping, or, if this is not the case, explains the exceptions to this rule.
  - Level 1 of the decomposition by secrets shows: Hardware-Hiding, Behaviour-Hiding and Software Decision Hiding.

- Behaviour-Hiding modules are related to the requirements
  - Software-Decision hiding modules are concepts that need to be introduced, but are not detailed in the requirements
  - Each Software Decision Hiding module is used by at least one Behaviour-Hiding Module (if this isn't the case, an explanation should be provided)
  - Uses relation is not confused with a data flow chart. If you can imagine an “import B” statement in the code for module A, then module A uses module B.
  - The arrow in the uses relation points from module A to module B when module A uses module B
  - Anticipated changes are a superset of the likely changes in the SRS
  - If there is a “control” module, it should be at the top of the hierarchy
  - Ideally the uses relation is drawn with all uses arrows pointing down, with clear layers for the hierarchy
- MG quality
  - Follow template
  - Low coupling
  - Satisfies information hiding
  - Figures can be zoomed in on (pdf better than bitmap for zooming)